

CSC3320 System Level Programming

Lab Assignment 6 - Part 1 - In-Lab

Purpose: Learn how to correct a shell script and write more

complicated shell scripts.

Part 1:

In order to finish the tasks in this lab, you must connect to snowball server to copy my checkError.sh

`$cp /home/yye10/public/checkError.sh checkError.sh` In Lab 5, you may have tried the shell script **checkError.sh** in part 3. However, there are **four** errors on **four** different lines in that shell

script. Please **correct** all the four errors by **writing down** the line number, the error and the correction as below:

1 : there was \$ for comment. Remove \$ to tell the file to use bash

2: there are /* at the beginning and the end. Remove them and replace with // for commenting that line

7: "<< END >>" ends the file, leaving the rest of the code to not process. and remove just the ">>" and then put "END" after "piece" (in line 13)

17: this line cannot be accessed because of the "END" (now in line). Remove "ls" to mail to the email and send the result to email.

```
#!/bin/bash
# Check Error Script
echo "Try to find out some errors!!!"
# Search for the words which can be matched by regex [^a]*ce
# And save the output to file "Result"
echo "The regex [^a]*ce can match the string(s):" > Result
grep '^[^a]*ce$' << END
lance
ace
brace
decide
piece
END
# Check the existence of file "Result"
# Send the content in "Result" to your mailbox
# $1 is replaced by your campusID
mail $1@student.gsu.edu < Result
# $1 is replaced by your campusID
echo "The result has been sent to ${1}@student.gsu.edu"
echo "Congratulations! You have corrected all the errors!"
```

Note: please use `cat -n` to

```
[mpatel185@gsuad.gsu.edu@snowball ~]$ ./checkError.sh
Try to find out some errors!!!
piece
The result has been sent to @student.gsu.edu
Congratulations! You have corrected all the errors!
[mpatel185@gsuad.gsu.edu@snowball ~]$
```

check the line numbers.

```
$#/bin/bash
```

```
/* Check Error Script */
```

```
echo "Try to find out some errors!!!"
```

```
# Search for the words which can be matched by regex
```

```
[^a]*ce # And save the output to file "Result"
```

```
echo "The regex [^a]*ce can match the string(s):" > Result
```

```
grep '^[^a]*ce$' << END >> Result lance
```

```
ace
```

```
brace
```

```
decide
```

```
piece
```

```
-ENDHERE
```

```
# Check the existence of file "Result"
```

```
# Send the content in "Result" to your mailbox
```

```
# $1 is replaced by your campusID
```

```
ls mail $1@student.gsu.edu < Result

# $1 is replaced by your campusID
echo "The result has been sent to ${1}@student.gsu.edu" echo
"Congratulations! You have corrected all the errors!"
```

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Hints:

- *Following is a sample of the output once all the errors are corrected*

```
$ ./checkError.sh ylong4
Try to find out some errors!!!
checkError.sh Result
The result has been sent to ylong4@student.gsu.edu
Congratulations! You have corrected all the errors!
```
- *You would also receive an email sent from your snowball account once all the errors are corrected.*
- *You may need to use **CTRL-C** to terminate the execution of the command, especially for the script file with errors.*

Part 2:

Write a single shell script **hello.sh** which can finish the list of tasks as below:

1.

Greet user. E.g. **Welcome to computer science society.**

2. Contain a comment section with your name, and email address.

3. Print the date.

4. Print the number of directories in **/home**.

5. Print the value of variables PATH, USER and SHELL.

6. Print your disk usage (**df**).

7. Print **Please, could you loan me \$25.00?**
8. Print **if x = 2, x * x = 4 , x / 2 = 1**
9. List all the **.sh** files with **c** at the beginning of the file name in current working directory.
10. Tell the user **Good bye** and the current hour (see manual page of **date** command refer to the webpage at <http://www.thegeekstuff.com/2013/05/date-command-examples/>)

Include the content of **hello.sh** in your answer sheet. Besides, please also upload **hello.sh** as a separated file.

```
[mpatel185@gsuad.gsu.edu@snowball ~]$ ./hello.sh
Welcome to computer science society.
Date:Fri Feb 19 22:28:49 EST 2021
    1      7      58
/usr/local/bin:/usr/bin:/usr/local/sbin:/usr/sbin:/home/mpatel185/.local/bin:/home/mpatel185/bin
mpatel185@gsuad.gsu.edu
/bin/bash
Filesystem            1K-blocks      Used Available Use% Mounted on
devtmpfs              3992588         0   3992588   0% /dev
tmpfs                 4004484         4   4004480   1% /dev/shm
tmpfs                 4004484    412044   3592440  11% /run
tmpfs                 4004484         0   4004484   0% /sys/fs/cgroup
/dev/mapper/cl-root   36678148  6331240  30346908  18% /
/dev/sdb1             131979268 53108960  72143092  43% /home
/dev/sda1             1038336    320300    718036  31% /boot
tmpfs                 800900         0    800900   0% /run/user/332769344
tmpfs                 800900         0    800900   0% /run/user/332626600
tmpfs                 800900         0    800900   0% /run/user/332744811
tmpfs                 800900         0    800900   0% /run/user/332745050
tmpfs                 800900         0    800900   0% /run/user/332708357
tmpfs                 800900         0    800900   0% /run/user/1580480496
tmpfs                 800900         0    800900   0% /run/user/332718778
tmpfs                 800900         0    800900   0% /run/user/332762867
tmpfs                 800900         0    800900   0% /run/user/332727705
tmpfs                 800900         0    800900   0% /run/user/1580543420
tmpfs                 800900         0    800900   0% /run/user/332727965
tmpfs                 800900         0    800900   0% /run/user/332676520
tmpfs                 800900         0    800900   0% /run/user/332685249
tmpfs                 800900         0    800900   0% /run/user/1580541536
tmpfs                 800900         0    800900   0% /run/user/332663943
tmpfs                 800900         0    800900   0% /run/user/1580505278
tmpfs                 800900         0    800900   0% /run/user/332610131
tmpfs                 800900         0    800900   0% /run/user/1580592109
tmpfs                 800900         0    800900   0% /run/user/332746103
tmpfs                 800900         0    800900   0% /run/user/1580525468
tmpfs                 800900         0    800900   0% /run/user/332729023
tmpfs                 800900         0    800900   0% /run/user/1580522390
tmpfs                 800900         0    800900   0% /run/user/332710395
Please, could you loan me $25.00?
if x = 2, x * x = 4 , x / 2 = 1
checkError.sh
Good Bye!
Current Hour=22
[mpatel185@gsuad.gsu.edu@snowball ~]$
```

Upload your answer sheet to the folder named “**Lab 6_P1**” of the dropbox in the iCollege system. Name your file in the format of **Lab6_P1_FirstnameLastname.pdf/doc**

Hints:

- When printing out strings using ***echo***, to escape the special meaning of the meta character, please use back slash \ before the meta-character.
- To share files between remote server and the host machine, we can use **FileZilla - A FREE FTP**. The link to download this application is <https://filezilla-project.org/download.php>